

REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 1-7, 9-11, 13-23, 25-28 and 30-33 and 35-38 remain pending in the application. By this Amendment, claim 11 is amended. No new matter is added.

In numbered paragraphs 2 and 3, page 2 of the Office Action, independent claim 11, along with dependent claims 13-16, is rejected under 35 U.S.C. §101 alleging that the elements as claimed could be reasonably interpreted in light of the disclosure by an ordinary artisan as being software alone. Applicants respectfully disagree with the Examiner's ultimate conclusion.

Applicants respectfully submit that the totality of the claimed recitation is not a "software" per se. Rather, as amended, claim 11 recites a computer-readable medium containing a graphical user interface configured to display files in a virtual file system with a semantic hierarchy of plural levels of clusters that is derived from semantic similarities of said files, clustering said files based on multiple threshold values, and determining a directory structure having plural levels of clusters based on the clustering determined from similarities between said files, wherein the graphical user interface graphically presents the determined directory structure having plural levels of clusters to be displayed on a display device. (See, specification, e.g., at lines 5-8 of paragraph [0017] and lines 4-8 of paragraph [0019].) Here, claim 11 makes it explicit that the graphical user interface is a **useful process** to graphically present the determined directory structure having plural levels of clusters to be **displayed in combination with an appropriate hardware**, e.g., a display device.

Withdrawal of the rejection of claims 11 and 13-16 under 35 U.S.C. §101 is respectfully requested.

In numbered paragraphs 5 and 6, pages 2-29 of the Office Action, claims 1-7, 11, 13-16, 17-23, 27, 28, 30-34 and 37 and 38 are rejected as allegedly being unpatentable over Bellegarda, "Exploiting Latent Semantic Information in Statistical Language Modeling," Proceedings of the IEEE, Vol. 8, dated Oct. 26, 2000, in view of US Patent 7,158,986 (Oliver et al.). In numbered paragraphs 7 and 8, pages 29-33 of the Office Action, dependent claims 9, 10, 25, 26, 35 and 36 are rejected as allegedly being unpatentable over the Bellegarda article, in view of the Oliver et al. patent and further in view of U.S. Patent 7,085,767 (Kusama). These rejections are respectfully traversed.

Applicants have disclosed that suitable thresholds can be established to implement any desired level of granularity (specification at page 10, paragraph [0030]). Applicants have further disclosed that a first threshold can be defined to establish the lowest level of clusters into which the documents will be grouped, and additional thresholds can define higher level clusters, or "super clusters", in which plural lower-level clusters are grouped (specification at page 11, paragraph [0030]).

The foregoing features are broadly encompassed by claim 1, which recites a method of displaying files within a file system to a user in a semantic hierarchy, including, among other features, clustering the files within said space, wherein multiple threshold values are defined and said files are clustered based on said multiple threshold values; deriving a hierarchy of plural levels of clusters from said clustering; and displaying the files in a hierarchical format of plural levels of clusters based on said derived hierarchy. See, also, independent claims 11, 17, 28 and 38.

Regarding claim 1, on page 3 of the Office Action, the Examiner asserts that the Bellegarda article teaches "wherein multiple threshold values are defined and said files are clustered based on said multiple threshold values." Applicants respectfully disagree with the Examiner's ultimate conclusion.

As relied upon by the Examiner, the Bellegarda article discloses that the clustering of a word vector can occur in stages, e.g., using K-means and bottom-up clustering sequentially (middle of right column, page 1284 of the Bellegarda article). There, K-means clustering is used to obtain a coarse partition of the vocabulary into a small set of superclusters, after which each supercluster is then itself partitioned using bottom-up clustering, resulting in a final set of clusters. However, the Bellegarda article would not have taught or suggested clustering files based on multiple threshold values, whereby a hierarchy of plural levels of clusters is derived and the files in a hierarchical format of plural levels of clusters are displayed based on said derived hierarchy, as variously claimed and acknowledged in the Office Action.

The Oliver et al. patent does not cure the deficiencies of the Bellegarda article. Rather, as relied upon by the Examiner, the Oliver et al. patent discloses the use of software clusters of documents that have the most themes and concepts in common with one another into interest folders 505 (col.12, lines 44-54). (See, also, col. 13, lines 10-16 and 22-28). That is, the cited passages merely relate to clustering per se, i.e., grouping. However, the cited passages do not disclose the concept of organizing clusters into a hierarchy that is derived from the clusters, as recited in the claims.

At least for these reasons, Applicants respectfully submit that the Bellegarda article and the Oliver et al. patent, considered individually or in the combination as suggested by the Examiner, would not have taught or suggested clustering the files within said space, wherein multiple threshold values are defined and said files are clustered based on said multiple threshold values; deriving a hierarchy of plural levels of clusters from said clustering; and displaying the files in a hierarchical format of plural levels of clusters based on said derived hierarchy, as recited in claim 1. See, also, independent claims 11, 17, 28 and 38.

The Kusama patent was applied by the Examiner for its disclosure relating to step S902 in which the "Title" of "cardinfo.xml" is read, and the folder having the same name as the meta data being saved in the "Title" is generated at a predetermined location in the binary data storage device (col. 5, lines 46-53). However, the Kusama patent, considered individually or in the combination with the Bellegarda article and the Oliver et al. patent, would not have taught or suggested clustering the files within said space, wherein multiple threshold values are defined and said files are clustered based on said multiple threshold values; deriving a hierarchy of plural levels of clusters from said clustering; and displaying the files in a hierarchical format of plural levels of clusters based on said derived hierarchy, as recited in claim 1. See, also, independent claims 11, 17, 28 and 38.

At least for the foregoing reasons, and for the reasons as set forth of record, Applicants' claims 1, 11, 17, 28 and 38 are allowable. The remaining claims depend from the respective independent claims, and recite additional advantageous features which further distinguish over the documents relied upon by the Examiner. As such, the present application is in condition for allowance.

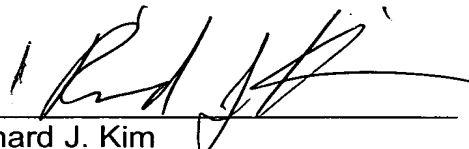
All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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